EASTERN RESEARCH GROUP, INC.

MEMORANDUM

TO: Kim Teal, U.S. EPA

FROM: Brian Palmer and Brandin McDonough, ERG

DATE: September 1, 2004

SUBJECT: Summary of the observations made at California Auto Body, a medium sized collision repair shop, in Sacramento, CA visited on June 16, 2004

FACILITY CONTACT: Benny Murillo
California Auto Body
6039 Franklin Blvd.
Sacramento, CA 95824

INTRODUCTION:

On June 16 and 17, 2004, Kim Teal (U.S. EPA), Brian Palmer (ERG), and Brandin McDonough (ERG) visited several automobile refinishing facilities in the Sacramento, CA metro area, and were accompanied by Jose Gomez of the California Air Resources Board (CARB), Nancy Adams (CA EPA), and Harvey Moyer of the Sacramento Metro Air Quality Management District (SMAQMD). The facilities visited are involved in the refinishing of automobiles. One of the facilities visited was only involved in complete car restorations. The remainder of the facilities primarily were involved in refinishing as associated with collision repair or "spot painting". One facility was involved in activities in both collision repair and complete car restoration.

These facilities were visited to collect information on how they complied with the SMAQMD's Rule 459 (Automotive, Truck, and Heavy Equipment Refinishing Operations) including their record keeping practices, what types of compliant materials they were using, and their overall work practices and how they relate to the release of Hazardous Air Pollutants. The information collected will be used to develop regulations for the automobile refinishing industry

under section 112(k) of the Clean Air Act.

FACILITY INFORMATION

Kim Teal, Brian Palmer, Brandin McDonough, and the representatives of the California agencies, met with Benny Murillo at California Auto Body on June 16, 2004. The majority of the business at California Auto Body is insurance work. The company takes part in the direct repair program with three insurance companies. They are required by the insurance companies to include photos with their estimates and must include the licence plate of the car in at least one photo. They send their estimates and photos over the internet and can get same day approval to begin the repair work. According to Mr. Murillo, the shop installs used (salvage) parts for repairs only if they are able to save at least about $80 to $100, compared to new parts. Otherwise, they will use new parts. Used parts are more likely to be used on older cars. The paint shop processes approximately five cars a day or about 100 cars a month and rarely, if ever, paints the whole car. The typical refinishing repair is about one third of the car body.

California Auto Body employs one journeyman painter and three apprentices. They use PPG paints and coatings. They do not use any water soluble primers. They always use two stage coatings consisting of a base coat and clear coat. They do not use any single stage top coats. They have two new Eagle brand semi-downdraft spray booths that were just installed prior to the site visit. Each booth was approximately $77,000 after installation. In a semi-downdraft booth, air enters through filters in the ceiling and exits through filters extending along the lower edge of each side wall. Mr. Murillo commented that they selected this style of booth over downdraft booths because downdraft booths cannot be easily moved since they require a trench or pit dug into the floor of the shop. This shop only leases their building.

The painters mix base coats only as pints or quarts. They save all of the excess paint from each job for reuse as a base coat and for "jamming" (painting the door frames and underside of trunk lids and hoods). Even so, approximately 40 percent of the excess paint eventually becomes waste. They have a solvent still for waste paint and an enclosed spray gun cleaner.

The shop has prep stations that are fully enclosed by curtains and have exhaust filters on the wall at bench height (from the floor to about 36 inches above the floor). These prep stations

are where all the masking, body repair, sanding, and jamming takes place. When masking off areas that are not to be coated, the workers use Slime™ HS sprayable masking product with a plastic sheet to prevent over-spray contamination. This product is easily spread over all areas of the automobile including windows, moldings, trim. The product is water soluble and is removed much like soap. According to the material safety data sheet for this product, it contains no hazardous ingredients and has a VOC content of 46 grams per liter, less water.[1] Masking tape and paper are still used to mask off areas immediately adjacent to areas that will be painted.

After being coated in the spray booth, the automobiles are brought back into the prep area and infrared lamps are used to bake the coating to speed curing and delivery to the customers.

A car was observed where the front fender was blended with the hood. Mr. Murillo described how the colored base coat that was applied to the fender was blended over onto the existing finish on the adjacent door and hood. The clear coat was then applied over the new fender, the door, and the hood so that it covered all of the new base coat and the entire surface of the fender, hood, and door. Carrying the clear coat to the edge of the panel avoids a thin "feather edge" of clear coat that would easily weather, compared to a full thickness of clear coat.

RECORD KEEPING PRACTICES

California Auto Body uses Phone In Record Keeping (PIRK) to comply with the SMAQMD VOC record keeping requirements. They have a computerized color mixing system, but it does not track any records. The system only displays the amount of each toner and binder that must be used to achieve a certain base coat color. The shop's journeyman painter keeps track of the ingredients and their amounts that go into every "ready to spray" mixture on a tablet he keeps on his work bench. He does not keep records of additional "drops" added to the mixture for final color matching. He then uses this tablet to fill out the PIRK fax-in sheets at the end of the week and turns them in to the shop secretary. He stated that the process takes about two minutes a car or about ten minutes a day.

[1] http://www.sherwin-automotive.com/media/msds/1338.pdf